

CLAIMS

What is claimed is:

1. A method for computer graphics processing, comprising:
modifying a value (x) based on an algorithm; and
performing an operation on pixel data taking into account the modified value;
wherein the value is modified utilizing the equation:

$$x + \Delta (X),$$

where Δ includes a value read from a texture map.

2. The method as recited in claim 1, wherein the pixel data includes a normal value, and further comprising modifying the normal value.
3. The method as recited in claim 1, wherein the operation includes a lighting operation.
4. The method as recited in claim 3, wherein the modifying is based on a depth-component of the algorithm.
5. The method as recited in claim 3, wherein the modifying allows the lighting operation to display the interaction of displayed objects.
6. The method as recited in claim 3, wherein the modifying allows the lighting operation to display bumpy shadows.

7. The method as recited in claim 1, wherein the operation includes a hidden surface calculation.
8. The method as recited in claim 1, wherein the operation includes a shadow mapping operation.
9. The method as recited in claim 1, wherein the value includes a depth-value.
10. The method as recited in claim 9, wherein the value includes a clip-space z-value.
11. The method as recited in claim 9, wherein the value includes a clip-space w-value.
12. The method as recited in claim 1, wherein X involves a projection transform.
13. The method as recited in claim 12, wherein X includes $(n \cdot T_{proj}[y])$, where $T_{proj}[y]$ includes the projection transform, and n includes a vector.
14. The method as recited in claim 13, wherein y equals three (3).
15. The method as recited in claim 13, wherein y equals four (4).
16. A computer program embodied on a computer readable medium for computer graphics processing, comprising:
 - a code segment for modifying a value (x) based on an algorithm; and
 - a code segment for performing an operation on pixel data taking into account the modified value;wherein the value is modified utilizing the equation:

$$x + \Delta (X),$$

where Δ includes a value read from a texture map.

17. A system for computer graphics processing, comprising:
a graphics subsystem, the graphics subsystem adapted for modifying a value (x) based on an algorithm, and performing an operation on pixel data taking into account the modified value;
wherein the value is modified utilizing the equation:

$$x + \Delta (X),$$

where Δ includes a value read from a texture map.